Amendments to the Claims:

The following listing will replace all prior listing of claims in the application.

Listing of Claims:

1. (Currently amended) A ~~Method~~ method of producing a complex structure wherein respective connecting faces of two ~~basic~~ structures ~~(1, 3; 1, 3, 19; 20, 21, 23, 25)~~ are brought into contact and assembled, ~~characterized in that,~~ the method comprising applying mechanical forces to each of the two structures before bringing them into contact to curve the two structures and create a tangential stress state difference,

~~before bringing them into contact, a tangential stress state difference imposed by curving each of the two basic structures to be assembled is created between the two faces to be assembled by applying mechanical forces to each of the two structures,~~

wherein ~~this~~ the tangential stress state difference causes ~~being selected to obtain within the assembled structure~~ a predetermined stress state within the complex structure under ~~given~~ subsequent processing conditions relative to the assembly conditions.

2. (Currently amended) The ~~Method~~ method according to claim 1 ~~of producing a complex structure, characterized in that~~ further comprising deforming one of the two structures ~~is deformed~~ before ~~offering up~~ bringing the two structures into contact ~~the second structure facing it~~.

3. (Currently amended) The ~~Method~~ method according to ~~either~~ claim 1 ~~or claim 2 of producing a complex structure, characterized in that the~~ wherein creating a tangential stress state difference ~~differences is generated by means of~~ comprises generating stresses ~~generated~~ independently in each basic structure.

4. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 3 of producing a complex structure, characterized in that~~ wherein the method further comprises curving the two structures ~~are curved~~ so that ~~the two~~ connecting faces ~~to be assembled~~ are respectively concave and convex.

5. (Currently amended) The ~~Method~~ method according to claim 4, ~~of producing a complex structure, characterized in that~~ wherein curving the two structures ~~are curved~~ comprises curving so that the ~~two~~ connecting faces ~~to be assembled are~~ comprise complementary faces.

6. (Currently amended) The ~~Method~~ method according to claim 5, ~~of producing a complex structure, characterized in that~~ wherein curving the two structures comprises curving ~~are curved~~ so that the ~~two~~ connecting faces ~~to be assembled are~~ respectively comprise spherical concave and spherical convex faces.

7. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 6 of producing a complex structure, characterized in that the~~ wherein applying mechanical forces ~~applied~~ to each of the ~~basic~~ two ~~structure~~ structures ~~result from the creation of~~ comprises creating a pressure difference between ~~the two~~ connecting faces ~~of said structure~~.

8. (Currently amended) The ~~Method~~ method according to claim 7, ~~of producing a complex structure, characterized in that the~~ wherein creating a pressure difference between the ~~two~~ connecting faces ~~of the structure to be curved so that it has a concave face to be assembled is created by~~ comprises aspirating ~~said structure~~ one of the two structures onto a concave preform having a suitable profile ~~selected as a function of that to be imparted~~ and imparting the profile to ~~the~~ a face of the one structure, ~~to be assembled and on which~~ and wherein the one structure rests ~~locally~~ on the concave preform at its periphery.

9. (Currently amended) The ~~Method~~ method according to claim 7, ~~of producing a complex structure, characterized in that~~ wherein creating the pressure difference between the connecting faces ~~of the structure to be curved so that it has a concave face to be assembled is created by~~ comprises aspirating ~~said structure~~ one of the two structures into a cavity, the one structure resting locally at its periphery on a seal bordering the cavity.

10. (Currently amended) The ~~Method~~ method according to claim 6 ~~of producing a complex structure, characterized in that the~~ wherein applying mechanical forces ~~applied are the result of~~ comprises deforming one of the two structures ~~structure~~ between complementary first and second preforms, one of which is concave and the other of which is convex, ~~with~~ and imparting selected profiles ~~selected as a function of that to be imparted~~ to the connecting face ~~to be assembled~~.

11. (Currently amended) The ~~Method~~ method according to claim 10, ~~of producing a complex structure, characterized in that~~ wherein the first complementary preform ~~is one of the~~ comprises a concave structure ~~structures to be assembled that has already been~~ curved to ~~the~~ have a selected profile.

12. (Currently amended) The ~~Method~~ method according to claim 10, ~~or claim 11 of producing a complex structure, characterized in that~~ wherein the second complementary preform ~~has~~ includes aspiration channels for keeping the one structure curved~~, once~~ after removing the first complementary preform ~~has been removed~~.

13. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 6 of producing a complex structure, characterized in that the~~ wherein applying mechanical forces ~~are applied~~ comprises applying mechanical forces simultaneously to the two structures ~~to be assembled~~ by deforming the two structures between two preforms having selected profiles ~~selected as a function of those~~ to be imparted to the connecting faces ~~to be assembled~~.

14. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 13 of producing a complex structure, characterized in that~~ wherein applying mechanical forces ~~are applied~~ comprises applying mechanical forces to at least one of the ~~substrates~~ two structures by means of a preform consisting of a mold.

15. (Currently amended) The ~~Method~~ method according to claim 14 ~~of producing a complex structure, characterized in that said~~ wherein the preform consists of a porous mold.

16. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 13 of producing a complex structure, characterized in that~~ wherein applying mechanical forces ~~are applied~~ comprises applying mechanical forces to the ~~substrates~~ two structures ~~with the aid of~~ using at least one deformable preform.

17. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 13 of producing a complex structure, characterized in that the~~ two structures are assembled by molecular bonding.

18. (Currently amended) The ~~Method~~ method according to claim 14 ~~of producing a complex structure, characterized in that~~ further comprising treating the ~~two~~ connecting faces ~~to be assembled are treated~~ to facilitate bonding.

19. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1 ~~to 18 of producing a complex structure, characterized in that~~ the two structures ~~substrates~~ are assembled by direct contact, wherein the ~~surface~~ face of at least one of ~~these substrates~~ the two structures ~~being~~ is adapted to prevent air from being trapped between the ~~assembled surfaces~~ connecting faces.

20. (Currently amended) The ~~Method~~ method according to claim 19 ~~of producing a complex structure, characterized in that~~ further comprising piercing at least one of the ~~substrates is pierced~~ two structures.

21. (Currently amended) The ~~Method~~ method according to claim 20, ~~of producing a complex structure, characterized in that said substrate is pierced~~ wherein piercing at least one of the two structures comprising piercing the structure at its center.

22. (Currently amended) The ~~Method~~ method according to claim ~~24~~ 19 ~~of producing a complex structure, characterized~~ further comprising forming in that at least one of the ~~substrates includes~~ two structures at least one dead-end channel discharging at the edge of the ~~substrate~~ structure.

23. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 16 of producing a complex structure, characterized in that~~ wherein the ~~substrates~~ two structures are assembled by means of a flow layer.

24. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1, ~~to 23 of producing a complex structure, characterized in that assembly is carried out~~ wherein the two structures are assembled at a temperature higher than room temperature.

25. (Currently amended) The ~~Method~~ method according to claim 24 ~~of producing a complex structure, characterized in that the substrates are heated~~ further comprising heating the two structures by contact with heated preforms.

26. (Currently amended) A ~~Method~~ method according to claim 25, ~~of producing a complex structure, characterized in that~~ wherein the preforms are heated to respective different temperatures.

27. (Currently amended) A ~~Method~~ method according to ~~any one of claims~~ claim 1 ~~to 26 of producing a complex structure, characterized in that the method~~ further ~~includes~~ comprising a technology step including a change of temperature, wherein the tangential stress state difference between the ~~two~~ connecting faces ~~to be assembled being~~ is selected so that, ~~during this step, the~~ stresses within the ~~assembled~~ complex structure remain below a predetermined stress threshold.

28. (Currently amended) The ~~Method~~ method according to claim 27, ~~of producing a complex structure, characterized in that~~ wherein the technology step ~~is~~ comprises a heat treatment step.

29. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1 ~~to 28 of producing a complex structure, characterized in that the method~~ further ~~includes~~ comprising, after assembling the two ~~basic~~ structures, a step of thinning one of ~~these~~ the two structures to produce a thin film, wherein the tangential stress state difference ~~between the two faces to be assembled being~~ is selected to impose a ~~given~~ predetermined stress level within the ~~resulting~~ thin film.

30. (Currently amended) The ~~Method~~ method according to claim 29 ~~of producing a complex structure, characterized in that~~ further comprising assembling the thin film ~~is assembled~~ to another ~~basic~~ structure by creating, prior to assembly, a tangential stress state difference between the ~~two~~ connecting faces ~~to be assembled~~, wherein ~~that~~ tangential stress state difference ~~being~~ is selected to obtain within the new assembled structure a predetermined stress state under ~~given~~ subsequent processing conditions relative to the assembly conditions.

31. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1 ~~to 30 of producing a complex structure, characterized in that the method~~ further ~~includes~~ comprising ~~an epitaxy step for~~ producing an epitaxially grown thin film ~~(23)~~ of a material on an external face of the complex structure, wherein the tangential stress state difference ~~being~~ is selected so that, at the epitaxy temperature, ~~that~~ the external face has a lattice parameter compatible with epitaxial growth of the ~~required the~~ material.

32. (Currently amended) The ~~Method~~ method according to claim 31 ~~of producing a complex structure, characterized in that~~ wherein the structure on which ~~epitaxy is to be effected is a thin~~ the epitaxially grown thin film ~~(22)~~ is formed is obtained by thinning ~~said~~ the structure after assembly.

33. (Currently amended) The ~~Method~~ method according to ~~either~~ claim 31 ~~or claim 32 of producing a complex structure, characterized in that the method~~ further ~~includes~~ comprising the following steps:

[[-]] assembling the complex structure including the epitaxially grown film ~~(23)~~ onto another structure ~~(25)~~ via respective connecting faces by creating, a tangential stress state difference between ~~these~~ two new faces to be assembled prior to assembly,

[[-]] thinning the complex structure to expose a face of the epitaxially grown thin film ~~(23)~~, and

[[-]] epitaxially growing a new material ~~(26)~~ on the exposed face of the thin film,

wherein the tangential stress state difference between the two new faces ~~to be assembled being~~ is selected so that the lattice parameter of the epitaxially grown thin film ~~(23)~~ is compatible with epitaxial growth of the new material ~~(26) to be grown epitaxially~~.

34. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1 ~~to 33, characterized in that~~ wherein ~~it~~ the method is carried out in a controlled atmosphere.

35. (Currently amended) The ~~Method~~ method according to ~~any one of claims~~ claim 1 ~~to 33, characterized in that~~ wherein ~~it~~ the method is carried out in a hydrogen atmosphere.